

The representations of volumes VOL01 and VOL02 within each storage system A and B are displayed using only the simple names of the object identifiers for each of these volumes. As explained above for VOL02 230, this is because these volume representations are shown within or under their home contexts in the graphical user interface 150. In other words, the user 108 intuitively understands by viewing the simple names only that VOL01 and VOL02 for STORAGE SYSTEM A are clearly related to the group object representation VOLUMES 232 under the STORAGE SYSTEM A representation, whereas VOL01 and VOL02 for STORAGE SYSTEM B are clearly related to the group object representation VOLUMES 237 under the STORAGE SYSTEM B representation. Since the resource manager 121 displays these volume representations within their home contexts only the simple name is used to represent these resources.

Conversely, the “VOLUMES” representations 234 and 238 represent groupings of any Unix or MVS volumes that exist within the computer system environment. Since the simple names VOL01 and VOL02 exist for different volumes in different storage systems, the resource manager 121 displays the specific volume representations for the volumes VOL02@STORAGE SYSTEM A, VOL01@STORAGE SYSTEM B, VOL02@STORAGE SYSTEM B and VOL01@STORAGE SYSTEM A in a fully qualified manner using both the simple name and home of the objects (not shown) that correspond to these volumes (i.e., to these resources) in order to convey to the user 108 which specific volumes are UNIX and MVS volumes. In this example, the simple name and home of the object are separated with an “@” symbol which allows the user 108 to quickly distinguish between the simple name and home of a volume.

The fully qualified syntax of a representation of an object in a graphical user interface thus appears as follows in this example embodiment:

OBJECT-ICON      OBJECT-SIMPLE-NAME@HOME-OF-OBJECT.

Aside from a object icon (which is optional in the graphical user interface and is not shown in the example in Figure 1), since the simple name of the object is shown first in

the representation of the object, a user viewing a graphical user interface that contains many representations of many objects expressed in this syntax can quickly and easily determine the identity of every object representation in the list since each object's simple name, which is the most important part of the object identifier assigned to that object from the user's perspective, is shown first. If the graphical user interface lists many objects in a vertical manner (e.g., the list of specific volumes), each simple name of each object representation lines up in a linear (e.g., left justified, and top-to-bottom) manner making it easy for the user to distinguish one object representation from another.

Figure 3 illustrates an example architecture of the computer system 110 configured according to embodiments of the invention. The computer system 110 may be any type of computerized device such as a personal computer, workstation, portable computing device or the like. The computer system 110 includes an interconnection mechanism 111 which couples a memory system 112, a processor 113, an input/output interface 114 and a communications interface 115. The input/output interface 114 allows peripheral devices such as the display 130 (e.g., computer monitor, Figure 1) to be connected to the computer system 110 for rendering the graphical user interface 150. In addition, a peripheral input device 116 such as a mouse or keyboard and is coupled to the input/output interface 114. The communications interface 115 allows the computer system 110 to communicate with software or hardware devices (i.e., resources) that operate within the network 100.

The memory system 112 is encoded with a resource management application 120. The resource management application 120 represents software code such as data and/or logic instructions (e.g., stored in the memory or on another computer readable medium such as a disk) that embody the processing functionality of embodiments of the invention. The processor 113 can access the memory system 112 via the interconnection mechanism 111 in order to launch, run, execute, interpret or otherwise perform the logic instructions of the resource management application 120 in order to produce the resource manager 121. In other words, the resource manager 121 represents one or more portions of the resource management application 120 (or the entire application 120 performing within or upon the processor 113 in the computer system 110).

Is to be understood that embodiments of the invention include the resource management application 120 (i.e., the un-executed or non-performing logic instructions and/or data) encoded within a computer readable medium such as a floppy disk, hard disk or in an optical medium, or in a memory type system such as in firmware, read only memory (ROM), or, as in this example, as executable code within the memory system 112 (e.g., within random access memory or RAM). It is also to be understood that other embodiments of the invention comprise the resource management application 120 operating within the processor 113 as the resource management process 121. While not shown in this example, those skilled in the art will understand that the computer system 110 may include other processes and/or software and hardware components, such as an operating system, which have been left out of this illustration for ease of description of the invention.

As illustrated in Figure 3, the resource manager 121 produces an example graphical user interface 150 which conveys a representation 151 of another example object hierarchy (not shown in this figure). Details of the representation 151 which are specific to embodiments of the invention will be explained after an explanation, in Figures 4 and 5, of an example of a single object data structure (Figure 4) and an example object hierarchy (Figure 5) which correspond to the representation 151 in Figure 3.

Figure 4 illustrates an example of an object data structure 302 (e.g., a class definition) suitable for use by embodiments of the invention. The object 302 comprises a plurality of fields 303 through 326 which include an object identifier 303, a list of one or more parent object(s) 309, a group object indicator 316, a reference to one or more child objects 322, a reference to one or more object properties 324 and a reference to one or more object methods 326. The object identifier includes a simple name 304, a home of the object 305, a suffix portion 306 (if required, as will be explained) and an optional icon 307. These fields 304 to 307 generally comprise the information that the resource manager 121 can display on the display 130 to provide a representation of the object in the graphical user interface 150. Some or all of the information from the object identifier fields 304 through 307 may be used to represent a resource in a graphical user interface

150.